Some questions apropos of Kirchhoff's theorem

Lázaro Rodríguez - Federal University of Rio de Janeiro (Brazil)

Abstract: In 1947 Kirchhoff proved that if an n-dimensional sphere admits an almost complex structure then the $(n + 1)$-dimensional sphere is parallelizable. We plan to revisit this theorem, and to raise some questions whose answers should shed light on the integrability problem for almost complex structures on the six sphere. We will sketch a framework to address one of these questions, this is part of an ongoing project with E. Loubeau and H. Sá-Earp.